

FINAL SUMMARY REPORT
ANALYSIS of AMC EDUCATION and TRAINING ALTERNATIVES
DELIVERY ORDER #11/CONTRACT DAAH01-97-D-R005
Period of Performance: July 23 through December 31, 1998
UAH Principal Investigator: Dr. R.G. Rhoades, Research Institute

Introduction:

This effort was initiated at the request of Army Materiel Command Headquarters to provide a source of informed comments and analysis on a variety of approaches that were being developed to provide career development, education and training for the Command engineers and scientists. It was anticipated that there would be several such approaches developed, that would require analysis. However, during the planned period of performance, the AMC official responsible for Engineers/Scientists career field policy departed, and there also was turnover of key Department of Army officials concerned with engineers and scientists. This resulted in only two significant initiatives requiring comment or analysis under this task during the performance period. These two initiatives—The RAND Study and the DOD Technology Leadership Workshop-- are discussed in the paragraphs that follow.

The RAND Study:

RAND/Arroyo Center was tasked by AMC to determine the continued validity of the "smart buyer" function as the primary reason for having Army laboratories and RDECS, and to acquire some statistical information that would shed light on the amount of outsourcing that currently existed in the programs conducted by the AMC laboratories and Centers. The UAH PI reviewed the progress to date on this study with the RAND Project Director (PD). During this review, he provided some helpful information to the RAND PD in literature citations that provide a theoretical basis for the "smart buyer" concept, and pointed out a logical flaw in trying to use the Army R&D Achievement awardees to determine if engineers and scientists providing weapon systems support were being appropriately recognized. Instead, it was suggested that there is a logical time lag in that the Army R&D Achievement Award is awarded for work typically done before the technology has resulted in a weapons system being decided upon. The UAH PI provided a description of the various approaches to providing matrix management support that exist within the several AMC Research, development and Engineering Centers, in order that the questions asked customers of the those RDECs about their "smart buyer" performance could be appropriately tailored and the answers correctly understood.

DOD Technology Leadership Workshop

The UAH PI participated as a resource person in a Technology Leadership Workshop sponsored jointly by the Department of Defense Technology and Human Resources organizations. The purpose was to examine potential solutions, including career development, education and training approaches, to maintaining a quality workforce to carry out DOD science and technology programs in an environment of continued downsizing. A useful discussion was held among the government, industry and university research managers present concerning techniques to attract and retain a quality

engineering and scientist workforce. There was consensus that organization-paid continuing graduate education is a “given”, if the organization is to be regarded as an attractive workplace. The importance of carefully thought-out growth assignments to provide engineers and scientists with “self-validating” experiences was also agreed to as a basic career development philosophy. The Air Force experience with contribution-based compensation under their personnel demonstration authority was described as successful, as a start on a quality improvement and retention approach. The UAH PI cautioned the Workshop participants about the need to recognize that there are differences between engineers and scientists that are important to recognize in developing career development, acquisition and retention strategies. For example, engineers typically identify themselves more closely with the organizations goals and objectives; they think more like managers, and tend to be more comfortable with schedule-driven projects.

Analysis of AMC Education & Training Alternatives
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